AMENDMENTS TO THE SPECIFICATION

Please replace the eighth complete paragraph on page 1 with the following rewritten paragraph:

-- Lilla ~~(US 3.974.318)~~(US 3,974,318) proposes a wood impregnation process in two stages: First a ~~vacuum / pressure~~vacuum/pressure impregnation with a solution of sodium silicate, then a drying process for the wood. In a second stage, a second impregnation with a solution containing metal salts that form silicates insoluble in water and, in this way, permits the precipitation of silicon in the wood interior. --

Please replace the first full paragraph on page 2 with the following rewritten two paragraphs:

-- A process proposed by ~~Simak~~Slimak et al. ~~(US 6.040.057)~~(US 6,040,576) and ~~(6.146.766)~~(6,146,766) is based in a wood impregnation process with soluble silicates and its insolubilization by thermic treatment. Similarly, St.-Michel ~~(US 4.642.268)~~(US 4,642,268) proposes an external protector film for roofing products based in wood and asphalt, which is obtained applying a film of a solution of silicon salts and then their drying.

Crews IV et al. ~~(US 5.205.874)~~(US5,205,874) proposes a superficial protection for metals and wood through the application of one or more films of silicates soluble in water and their conversion to silicon dioxide with a phosphoric acid treatment. --

Please replace the second full paragraph on page 2 with the following rewritten paragraph:

-- Additionally, two Japanese patents are based in wood impregnation with silicon salts and a natural polysaccharide: Inque and Tsujimura ~~(US 5.549.739)~~(US5,549,739) uses chitin and colloidal silica at a neutral pH value with the option to add other substance like boron, copper, titanium among others; Moriya and Motai (JP 10-017.426) describe an impregnation that is based in the utilization of sodium silicate, two additional inorganic compounds and an extract of red algae. --

Please replace the third full paragraph on page 2 with the following rewritten paragraph:

-- Finally, ~~Kaellstroem~~Kallstrom EP 0.221.868 describes a process to produce fire-resistant walls that is based in the incorporation of silicates, cement and water. --

Please replace the sixth full paragraph on page 2 with the following rewritten paragraph:

-- ~~Short and Rayfield~~Kajiwara et al. ~~(US 4706871)~~(US 4,706,871) proposes the introduction of boron in the wood interior in the form of boric acid esters, which would then be hydrolyzed. In this way, they argue, it is possible to obtain boron concentration between 0.5 and 3.5 % in the treated wood. Nasheri ~~(US 5871817)~~(US 5,871,817) plants a similar process, using methanol or ethanol together with boric acid. Patel et al. ~~(US 4719110)~~(US 4,719,110) proposes an impregnation with a solution produced by the mixture of sodium tetraborate and phosphoric acid in a 5:3 molar relation at the boiling temperature of the mixture in ~~a~~an aqueous medium. A patent of Murphy et al. ~~(US 5330847)~~(US 5,330,847) is based in the use of metallic esters of boron, which forms an azeotrope with an alcohol and can be hydrolyzed in the wood interior. --

Please replace seventh full paragraph on page 2 with the following rewritten paragraph:

-- Other authors recommend the use of solutions containing organic solvents as means of transport for the active agents based in boron: Bechgaard ~~(US 4610881)~~(US 4,610,881) proposes the use of ethylenglycol, Palmere et al. ~~(US 5104664)~~(US 5,104,664) proposes a mixture of glycols and ~~Dunstan and Bartlett~~Dunstan et al. ~~(US 560184)~~(US 5,601,849) propose polyethylenglycol, ~~Paysant~~Payzant ~~(US 5846305)~~(US 5,846,305) proposes the simultaneous impregnation of compounds based in copper and boron dissolved in a solution that contains an amine as well as a glycol. --

Please replace the last full paragraph beginning on page 2 with the following rewritten paragraph:

-- Thompson ~~(US 5151127)~~(US 5,151,127) plants the encapsulation of diverse active agents; among them are borax, boric acid or boric oxide, in an acrylic resin. Hsu et al. ~~(US 5246652)~~(US 5,246,652) proposes the production of wood based panels by a process that includes wood impregnation with boric acid or a water-soluble borate and the use of phenolic

resins as adhesive. Slimak and Slimak ~~(US 6146766)~~(US 6,146,766) propose an impregnation with sodium silicate and, optionally, a mixture of boric acid and sodium borate to make the compounds insoluble by radiant energy, electric current, microwave, convection ovens, zone heating, etc. at an elevated temperature for short periods of time. Schubert et al. ~~(US 5612094)~~(US 5,612,094) make boric acid insoluble with a solution of water-soluble zirconium salt. --

Please replace the first full paragraph on page 3 with the following rewritten paragraph:

-- In many locations of the world, wood that has been preserved for a long time can frequently be found due to a natural process called petrifaction. This process consists, basically, in the contact of the wood with waters that contain small concentrations of soluble ~~silice~~silica, which under adequate conditions penetrates the wood and is deposited in its interior. In nature, this process is very slow and takes thousands of years. The positive result is evident with respect to the durability of petrified wood vis-a-vis microorganisms and the fire. --

Please replace the sixth full paragraph on page 3 with the following rewritten paragraph:

-- The precipitation of the petrifying agent from the aqueous solution in the wood interior occurs due to a diminution in the pH value of the liquid after impregnation as a result of the action of the acidic groups of the wood produced by the process's operating conditions and the neutralizing action of carbon dioxide present in the atmosphere. The alternative exists, as well, to apply a washing solution containing only water or water with small quantities of salts or acids that accelerate the diminution in the pH and favors the velocity of insolubilization. The washing solution can contain an organic or inorganic acid; especially useful are mineral acids such as sulfuric acid, hydrochloric acid, nitric acid or boric acid. A mixture of acids or of acids and salts can equally be used. During the washing, a solubilization of ~~silice~~silica or boron is not produced if the methodological procedure of the present invention is followed. --

Please replace the first full paragraph on page 4 with the following rewritten paragraph:

-- The content of ~~silice~~silica in the wood can vary in a wide range, depending on the intended final use, by varying the ~~silice~~silica concentration in the impregnating solution and the operating conditions of the impregnation process. The concentration range depending on the use can vary between approximately 4 and 126 kg/m^3 of wood. --

Please replace the second full paragraph on page 4 with the following rewritten paragraph:

-- Together with the ~~silice~~silica it could be convenient, depending on the characteristics that one wants to impart to the petrified lignocellulose material, to incorporate boron salts that can translate into greater stability with respect to fire and insect and fungus action, if the process is performed according to the conditions of the present invention, which are based in the high solubility of sodium or potassium metaborate in an aqueous solution at an alkaline pH value, ideally between 11 and 12. In this way, the incorporation of a high concentration of boron in the wood interior is possible without having to fall back on the troublesome and expensive procedures such as the esterification of boric acid or the use of organic solvents during impregnation. Additionally, under the mentioned conditions, it is possible to impregnate the wood together with the silicon salts, a central aspect of the present invention, because the insolubilization of the silicates, due to a change in the pH value, permits the retention of boron salts in the wood interior in a silica matrix and crystallized due to their lower solubility, as tetraborate or boric acid. –

Please replace the first full paragraph on page 7 with the following rewritten paragraph:

-- An accelerated petrifaction process for lignocellulose materials, and especially for low density wood for construction, housing, industrial, decorative, agricultural as well as other uses like: the fabrication of paneling, windows, doors, floors, posts, beams, poles, furniture, terraces, bridges, machine parts and many others for interior and exterior use, and even in contact with soil and water, is produced through an impregnation with an alkaline hydroxide solution and a water soluble silicate, alternatively including soluble salts of a metaborate, and its ~~insolublization~~insolubilization ~~in situ~~"in situ" due to the action of acidic organic groups liberated by the components of the lignocellulose material due to the

conditions characteristic of the process and the presence of carbon dioxide in the surrounding air. The impregnation with silicate occurs in a range of pH between 9 and 13, and preferably between 11 and 12. The impregnation is performed with wood having a humidity content between 1% and 50%, and preferably less than 30%. The soluble silicate is generally sodium silicate in a silica solution, with a concentration between 1% and 28% by weight, preferably between 4% and 16% by weight. The soluble silicate may also be a potassium silicate in a silicon solution, with a silicon dioxide concentration between 1% and 28% by weight, preferably between 4% and 16% by weight.